Jenkins

INTRODUCTION

Jenkins is the most popular, open source continuous integration tool. It is written in Java Programming Language.

Features of Jenkins:

1. Easy installation, & is compatible with multiple OS, such as MacOS, UNIX like OS, Linux.
2. Plugins, they enhance the functionality of jenkins environment to suit user specific needs.
3. Extensible
4. It can easily distribute work to multiple machines helping in faster build, test and deployment process.

Continuous Integration

1. Definition
2. How CI is achieved?
3. Other tools for CI

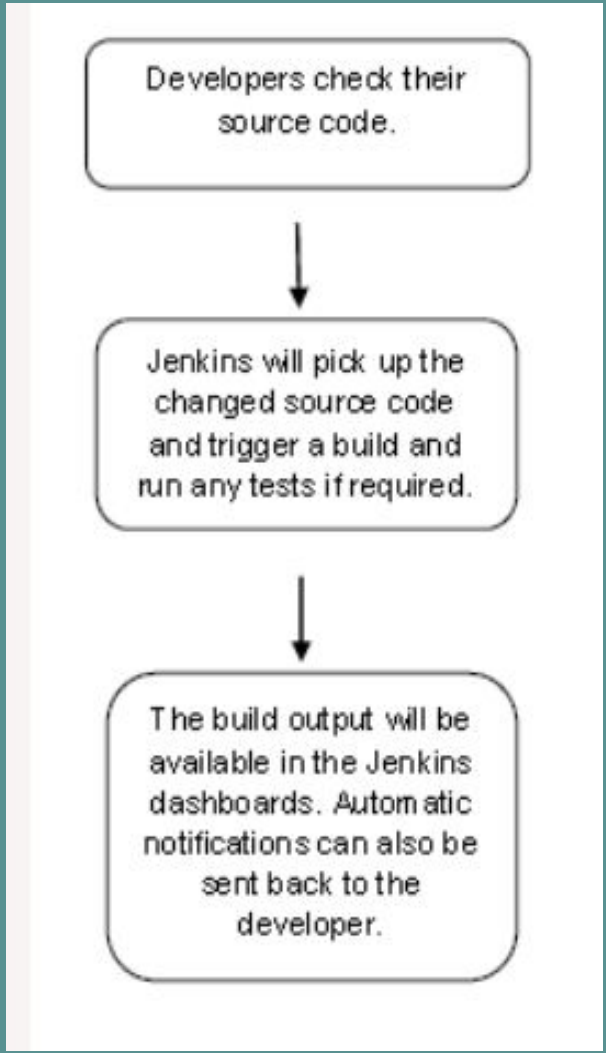
1. Continuous integration is the practice of merging all developers working copies to a shared mainline several times a day.
2. Jenkins achieves CI with the help of plugins. To integrate a particular tool, we must install the plugins for that tool.

   Eg of plugins are: Maven 2 Project, Git, HTML Publisher, Amazon EC2, etc.
3. Bamboo, BuildBot, Travis CI, etc. & all of these are open source.

WORKFLOW

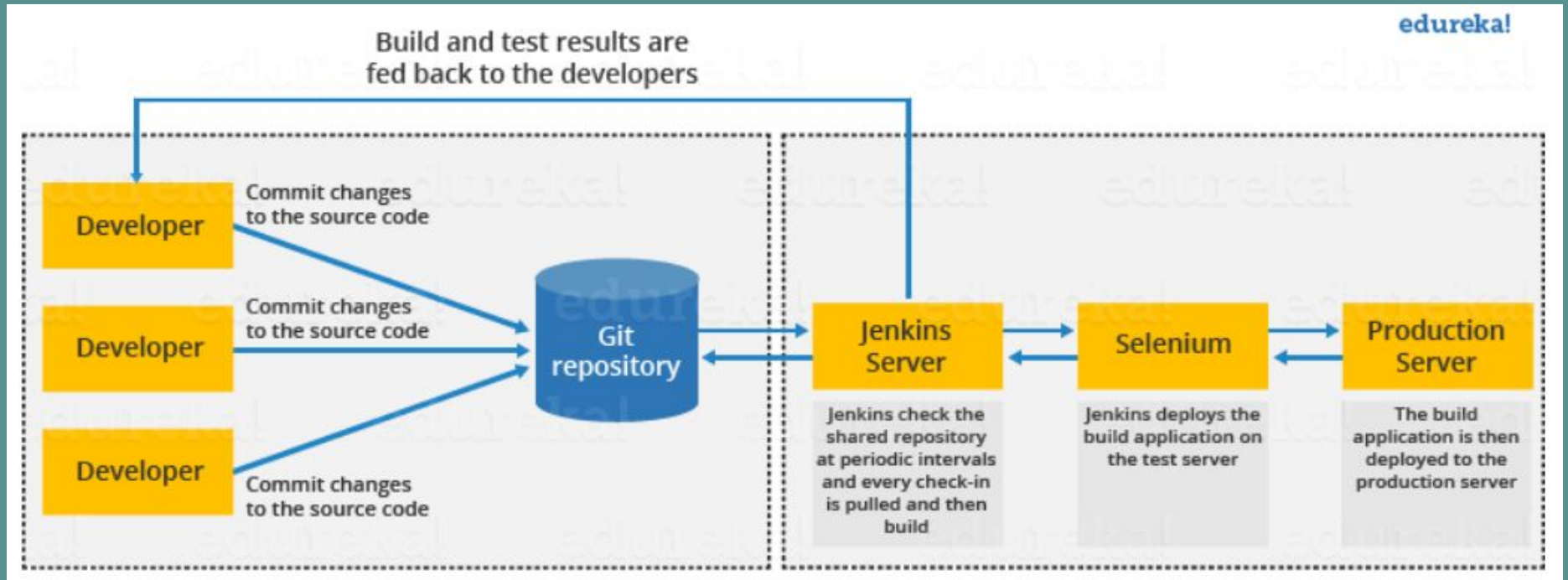
★ Steps:

1. Perform software build using Gradle or Maven Apache.
2. Execute a shell script.
3. Archive a build test.
4. Running a software test.

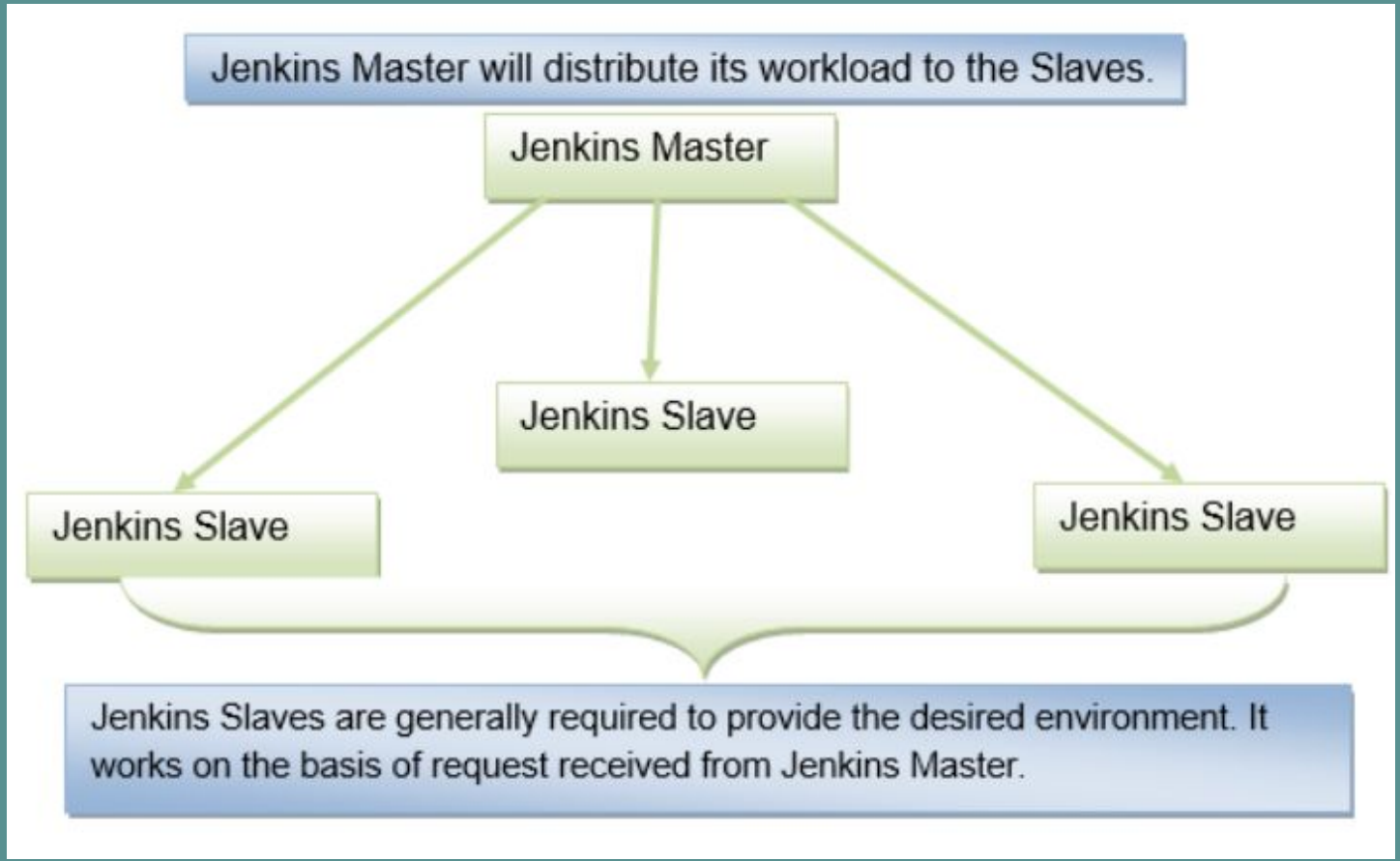


CI with JENKINS

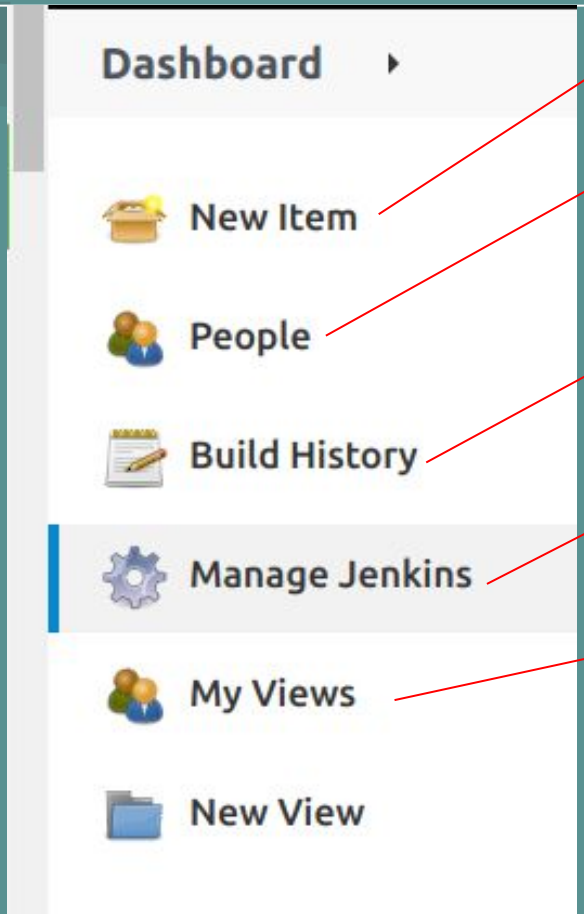
1. Developer commits the code to repo and jenkins checks repo continuously.
2. If changes are occured then new build is prepared by jenkins.
3. If build fails then developer is notified otherwise it is deployed to test server.
4. After test, jenkins server notifies developer about build & test, process cont.



ARCHITECTURE



Services of Jenkins



We can create new jobs by clicking this option.

Includes all known users including login identities

As the name suggest it shows the build history i.e. whether the build failed or succeeded

This option contains various services like managing users, managing plugins, security related tasks and many more.

We can see the jobs that we have built along with their description about success rate, failure rate and many more.